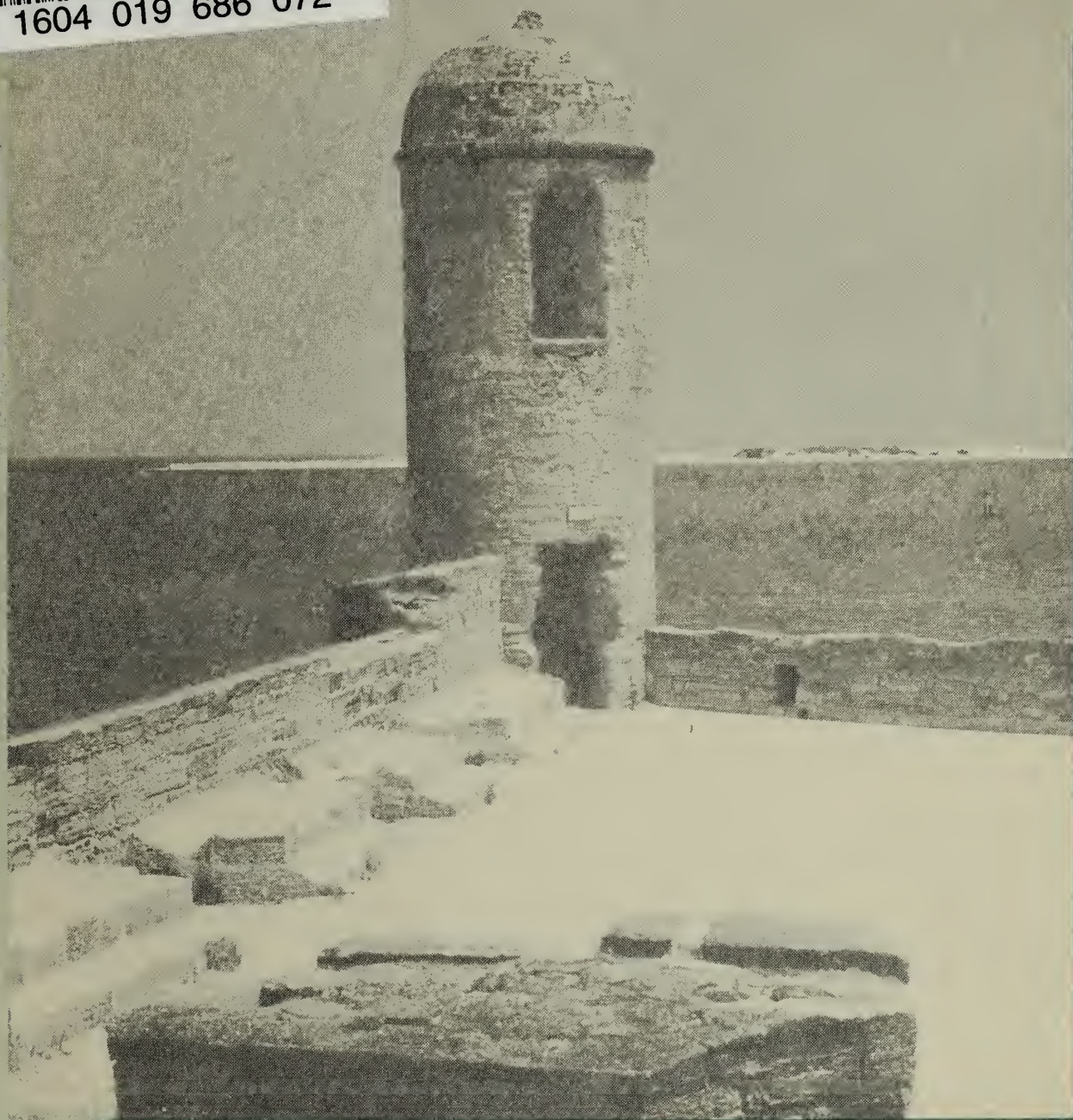


L 27.52:2

Clemson University



3 1604 019 686 072



THE BUILDING OF

Castillo *de*

San Marcos



UNITED STATES
DEPARTMENT OF THE INTERIOR

Harold L. Ickes, *Secretary*



NATIONAL PARK SERVICE

Newton B. Drury, *Director*

For sale by the Superintendent of Documents
Washington, D. C. - - - - Price 10 cents

T H E B U I L D I N G O F

Castillo de San Marcos

by

ALBERT C. MANUCY

Assistant Historical Technician

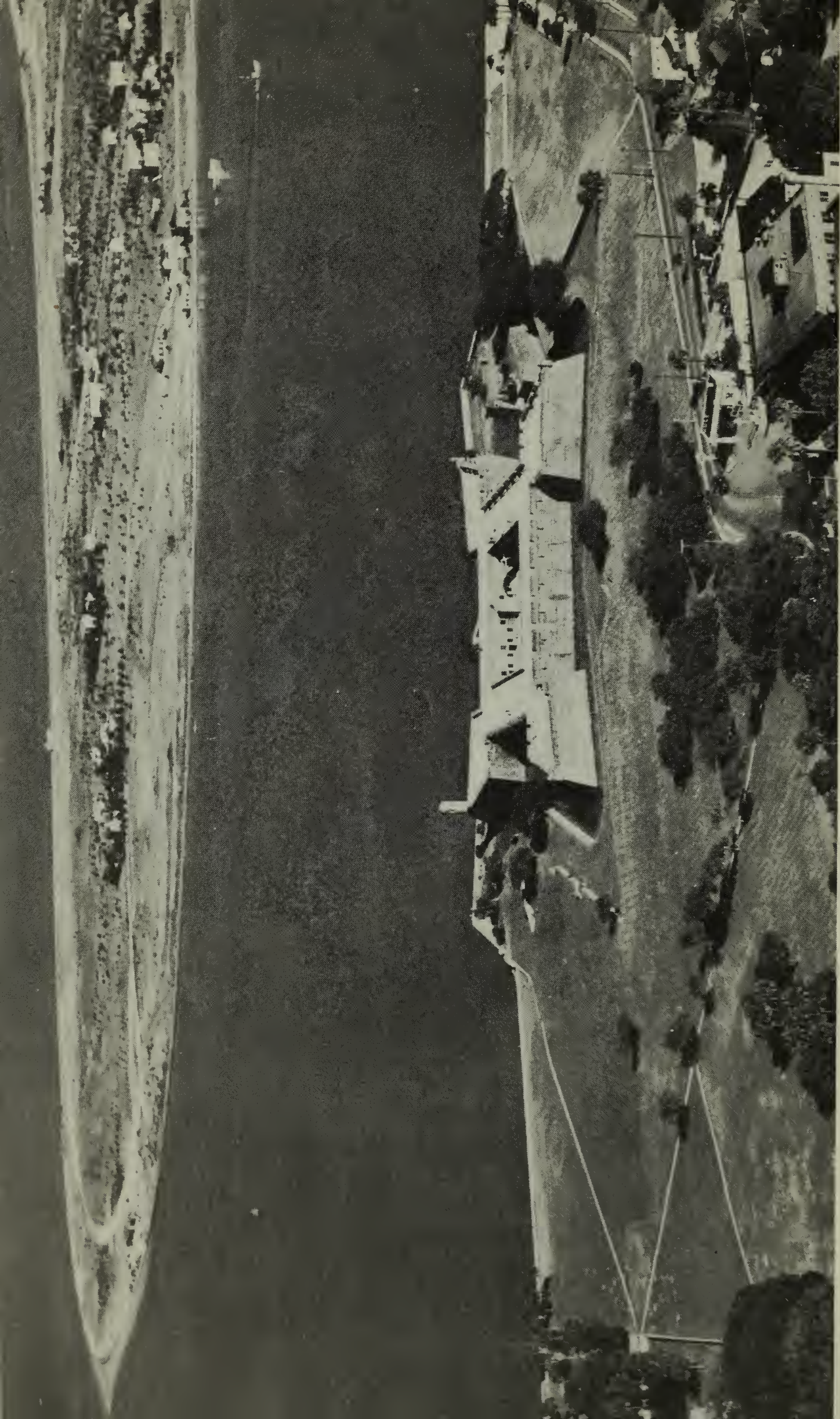
Castillo de San Marcos National Monument



Interpretive Series *History No. 1*

UNITED STATES GOVERNMENT PRINTING OFFICE

WASHINGTON, 1942



CASTILLO DE SAN MARCOS, OLDEST EXISTING MASONRY FORT IN THE UNITED STATES, IS A TYPICAL EUROPEAN FORTIFICATION OF THE LATE 1600'S. IT OVERLOOKS THE ENTRANCE TO ST. AUGUSTINE HARBOR, AND FROM ITS WATCHTOWER THE SENTRY'S LOOKED OUT OVER THE MIGHTY ATLANTIC TOWARD THE TREASURE FLEETS ON THEIR WAY TO SPAIN.

The Building of Castillo de San Marcos

FLORIDA AND THE PIRATES

A PIRATE RAID forced the Queen of Spain to build Castillo de San Marcos in Florida. On May 28, 1668, a sailing vessel appeared off the shallow bar of St. Augustine Harbor. It was a ship from Vera Cruz, bringing a supply of flour from New Spain to feed the poverty-stricken soldiers and settlers in Spanish Florida. Out went the harbor launch to put the bar pilot aboard. The crew of the launch hailed the Spanish seamen lining the gunwale of the supply ship, and to the routine questions came the usual answers: Friends from New Spain—come aboard. The launch fired a prearranged two shots telling the Governor that the vessel was recognized, then she warped alongside and tied up. Not until then did a strange crew swarm out from hiding and level their guns at the chests of the men in the launch. There was nothing for them to do but surrender. Worst of all, the reassuring signal had already been given. No one in the fortified town of St. Augustine could suspect the presence of pirates.

The invaders waited until midnight, when the presidio was asleep. Quietly they rowed ashore in small boats. Scattering through the streets, shouting, cursing, firing their guns, the hundred of them made such an uproar that the bewildered Spaniards dashing out of their homes thought there were many more. Governor Guerra emerged from his house and with the pirates pounding at his heels, he joined the guard in the race for the old wooden fort. Behind those rotten walls with 33 men, he somehow beat off several assaults. By daybreak his little force was reduced to 28.

Defense of the town itself was the charge of Sgt. Maj. Nicolás Ponce de León and some 70 soldiers. In the darkness the pirates fired effectively at the burning matches of the Spanish *harquebusiers* (soldiers with match-lock guns), and Ponce and his men fled to the woods. More than half a hundred Spaniards were killed as they ran from their homes into the confusion of the narrow streets. Many others were wounded on their way to

the shelter of the forest. The pirates were left in complete possession of the settlement.

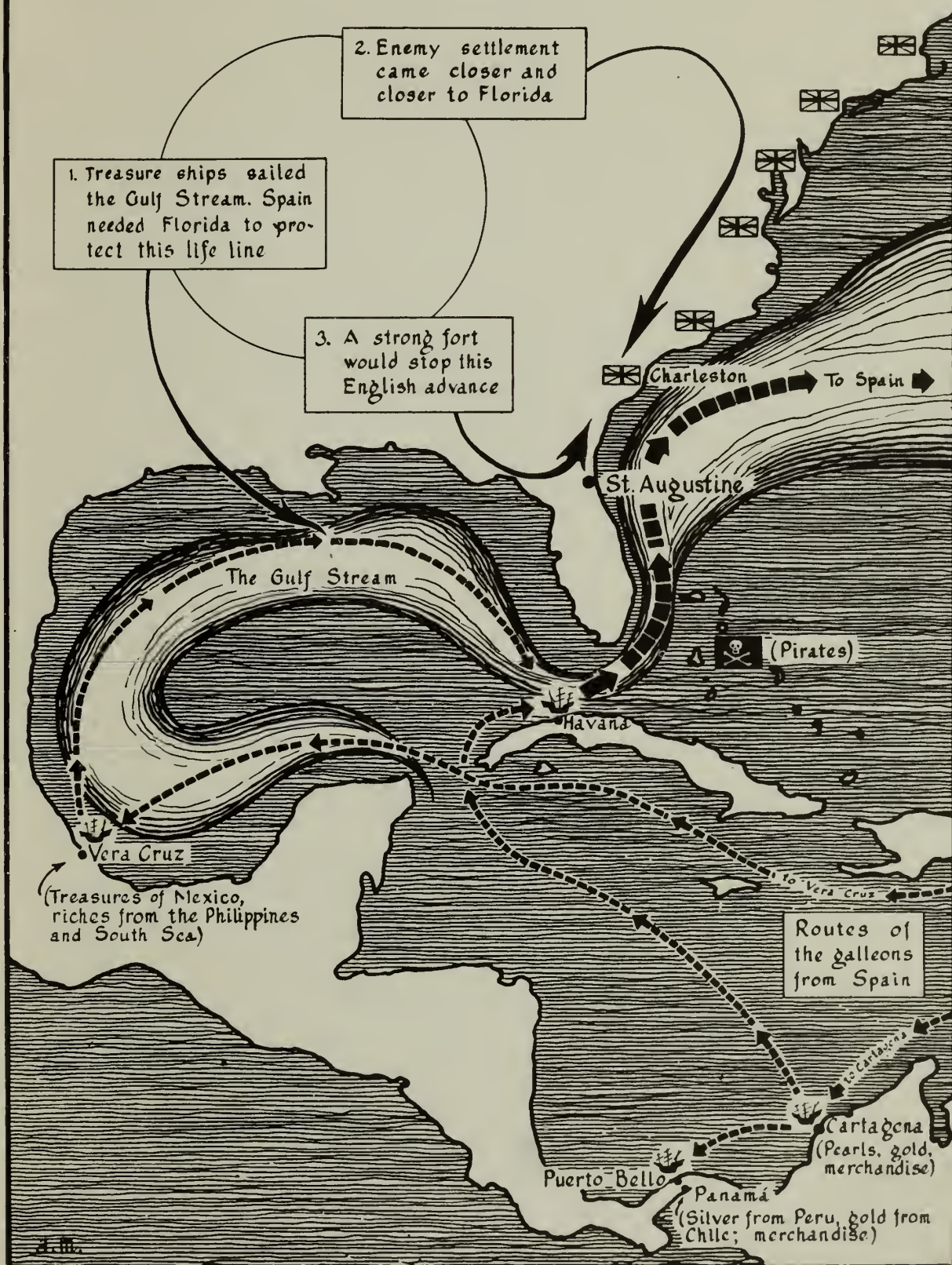
When daylight came, a previously hidden enemy warship put in an appearance and anchored with the captured supply boat just beyond range of the fort guns. Meanwhile, the pirates systematically sacked the town. No structure was neglected, from humble thatched dwelling to royal storehouse, hospital, and church, though the things carried off were worth but a few thousand pesos, for the town was poor. Powerless to do more, the Governor made the futile gesture of sending a sortie out from the fort. Those brave soldiers managed to get in a few shots at the already departing pirate boats.

The pirates left their prisoners at the presidio, and these unfortunates were able to explain the daring raid. It went back to the argument Governor Guerra had had with the presidio's French surgeon some time before. That disgruntled doctor was captured on his way to Havana by the pirates, who had already seized the supply ship from Vera Cruz. Seeing a chance for revenge on Guerra, the Frenchman conferred with his captors, apparently suggested the raid, and gave them the information they needed to work out a plan. Nor was this the only news from the prisoners. The invaders were the English. Furthermore, they had carefully sounded the bar, taken its latitude, and noted the landmarks with the avowed intent of returning in force to seize the fort and make it a base for their raids on commerce in the Bahama Channel. The fact that they did not leave the town in ashes lent credence to this report.

In Spanish eyes, the 1668 sack of San Agustín (St. Augustine) was far more than a daring pirate raid on a tiny colonial outpost. St. Augustine was the keystone in the defenses of Florida. And Florida was highly important to Spain, not as a land rich in natural resources, but as a way station on a great commercial route. Each year, galleons bearing the proud banners of Spain drove slowly past the coral keys and surf-pounded beaches of Florida, following the Gulf Stream on their way to Cádiz. In these galleons were millions of ducats worth of gold and silver from the mines of Peru and Mexico.

It was the year after Magellan's ships encircled the world that the Conquistador Cortés dispatched a shipload of treasure from conquered Mexico. The loot never reached the Spanish court, for a French corsair took it to Francis I. That incident opened a new age in the profitable profession of piracy. Daring pirates of all nationalities sailed for the shelter of the West Indies. Florida's position at the wayside of the life line connecting Spain with her colonies meant that this semitropical peninsula was of great strategic importance. Like the dog in the manger, Spain had to

WHY SPAIN BUILT THE FORT



occupy the territory to prevent her enemies from using the marshy estuaries and natural harbors as ports from which to spread their sails against the commerce of her far-flung empire; and this same inhospitable country had to be made a refuge for the hundreds of mariners shipwrecked along the Florida reefs and the lee shores of the narrow channel.

It was a sizeable defense problem and one not seriously considered until French pressure caused the establishment of St. Augustine in 1565. With this small fortified settlement on one side and growing Havana on the other side of the Bahama Channel, ships could normally pass safely from the ports of New Spain to those of the Old Country. Gradually a system of missions developed in Florida—fingers of civilization reaching out into the wilderness of the southeast. Since the missionaries had to be protected, both from hostile aborigine and European, defense became a matter of dual operation. The unceasing hunt of the coast guard for starving castaways, storm-wrecked vessels, and pirates was paralleled on land by the rapid marches of the patrols along the Indian trails or the sailing of the piraguas through the coastal waterways. The presidio of St. Augustine was the base of operations, and here the strongest forts were built.

A typical early fort was San Juan de Pinos, burned by the English freebooter Francis Drake in 1586, after being robbed of its bronze artillery and some 2,000 pounds sterling “by the treasurer’s value” in the most devastating raid St. Augustine ever suffered. Such a fort as San Juan consisted of a pine timber stockade around small buildings for gunpowder storage and quarters. Cannons were mounted atop a broad platform, called a *caballero* or cavalier, so that they could fire over the stockade. In the humid climate, these forts were a very temporary expedient. While they could be built cheaply and quickly, often they failed to last out the decade, exposed as they were to the fire arrows of the Indians and the ravages of the seasonal hurricanes. During the century before Castillo de San Marcos was started, nine wooden forts, one after another, were built at St. Augustine.

Nor did Spain yet see the need for an impregnable fort in the Florida province. After the English record at Roanoke, the weakling settlement of Jamestown did not impress the powerful Council of the Indies at far away Madrid. Moreover, the activities of the Franciscans in extending the mission frontier into the western and northern Indian lands not only gave Spain actual possession of more territory than she ever again was to occupy in Florida, but apparently was a sure means of keeping out rival Europeans. The fallacy in this thinking lay both in disparaging the colonizing ability of the Anglo-Saxon and in believing that an Indian friendly to Spain would not, if given the opportunity, become friendly to England. The red man was restive under the strict teachings of the friar, and it turned out

that the English fur trader equipped with glittering presents and shrewd promises found little difficulty in persuading his naïve customer to desert the mission and ally himself with the English cause. Not until the missions began to fall before the bloody onslaughts of the Carolinian and his native ally did the grim walls of Castillo de San Marcos arise.

Spain was on the decline as a great power. The storm-scattering of her powerful armada in the English Channel was symbolic. On the other hand, the exploits of the English seamen in that fateful year of 1588 were but a prelude to Britannia's career as mistress of the seas. For England, the seventeenth century opened an era of commercial and colonial expansions, when the great trading companies were active on the coasts of four continents and powerful English nobles strove for possessions beyond the seas. To this era belong the origins of the Carolinas, the Jerseys, Penn's Colony, and the famous Hudson's Bay Company. A vast, rich territory stretched from the James River region to the Spanish Florida settlements, and in 1665 the British Crown granted a patent for its occupation. By the terms of this patent, the boundaries of the new colony of Carolina brazenly included some hundred miles or more of Spanish occupied land—even St. Augustine itself!

The trend was becoming clear. The fight for Florida was inevitable.

In the middle 1600's St. Augustine was practically defenseless. Where the masonry fort now stands, there was a wooden fort of almost the same size, but rotten—rotted into uselessness and so weakened by repairs that much of the original design was lost. Nor were there means for fixing it. A smallpox epidemic made Indian labor out of the question, so there were no peons to bear heavy timbers on their shoulders from the forests. No silver lay in the King's chest: the Florida colony existed almost solely by means of a subsidy of money and provisions from New Spain, whose commerce it protected, and the reluctance of the New Spain Viceroy to pay that subsidy meant that the usual condition of St. Augustine was one of direst poverty and extreme want.

Yet, if ever Florida needed a strong fort, it was now. Year by year the corsairs were becoming bolder. Without stronger defenses for the province, said one Governor, "the success of its defense would be doubtful in spite of the great valor with which we would resist. . ." The matter of building a permanent fort had been broached as early as 1586, soon after the discovery of the native shellrock called coquina, and before the turn of that century Governor Canço reported not only the successful construction of a stone powder magazine but a renewed enthusiasm for a masonry fort. The sandy, unstable coastal soil provided the engineers with a problem, but the real obstacles to accomplishment were the poverty



WITH OXCARTS IN PLACE OF THE TRUCKS, THIS QUARRYING SCENE ON ANASTASIA ISLAND MIGHT HAVE TAKEN PLACE ALMOST 300 YEARS AGO.

of the presidio and the feeling of the Madrid officials that Florida did not require strong military defenses. Even when the Spanish Crown granted permission to build a stone fort (as happened more than once) circumstances proved that the time for the castillo had not yet come. Once a very practical Florida administrator cited the abundance of native materials, and even went so far as to claim that no additional funds would be needed for building a stone fort. All he wanted was the prompt payment of the subsidy from New Spain—a not unreasonable plea—and out of that money he would buy a dozen Negro slaves versed in stonecutting and masonry, slaves such as were available in any number of Caribbean towns, and to be sure the work was done right he wanted the engineer from Cartagena assigned to the job. At the very least, this Governor asked for the slaves: if nothing more, they could face the walls of the wooden fort with stone.

Even this well-considered project was tabled. One of Florida's royal officials in a letter unwittingly mentioned the old fort as being in fair condition, and the Council in Madrid decided to await more information before doing anything.

The Council appeared more concerned over other Florida problems, and for good reason. Even before fortification came the matter of keeping the St. Augustine people from starvation such as came in the spring of 1662. Expected provisions from New Spain failed to arrive; the frigate out of St. Augustine, bringing maize from the granaries of the Apalache Indians in western Florida, was long overdue and the people feared she was lost. The tiny garrison was more or less accustomed to being underclothed, underfed, and unpaid, but to make matters worse, the Royal Treasurer refused to pension several veterans—men who had spent 50 years in the service of the Crown. True, these soldiers were now too old even for ordinary guard duty. The Treasurer was within his rights in refusing to pay them when they did not work, but his refusal was a death knell for the old men. The Governor saw it as something worse—a damaging precedent. The younger soldiers would realize, argued the Governor, that “they were wasting their youth and hoarding up for themselves a sentence of death from starvation as the price of their services.”

The Council of the Indies sided with the Governor in this routine instance of bleak poverty, and certainly the Treasurer was glad to relieve his own conscience. Yet the fact remained that while the officials in Spain recognized the shocking conditions of neglect, St. Augustine was still far from succor. To the Viceroy of New Spain went new orders to pay the subsidies. The royal commands were ignored. By 1668 more than 400,000 pesos—8 years' payments—were owing to the Florida presidio. Then came the midnight raid of 1668.

After that crippling blow, St. Augustine was left destitute. Once again the soldiers were faced with the prospect of digging roots by day and begging alms by night from the few more fortunate inhabitants of the presidio—or starvation. As for the old wooden fort—the one nominal defense of the colony—a gun platform had fallen under its artillery; there was a great breach in the timber wall; the sea had washed away part of the foundation.

Notwithstanding, the sack of St. Augustine proved to be a blessing in disguise, for the turn of events shocked the home officials into action. On October 30, 1669, Queen Regent Mariana commanded the Viceroy of New Spain to provide 12,000 pesos to start a new fort of stone, and 10,000 pesos each year to carry it to completion, amounts over and above the regular subsidy.

That year the Viceroy released more than 83,000 pesos for relief of the stricken settlement. It was 12 months of life for the colony. Out of it also came hire for mules that carried baggage from Mexico City to Vera Cruz—baggage for soldiers recruited for Florida. Trouble there was in finding even 75 men, and even more trouble in getting them aboard ship for the long voyage to the hardships of the frontier province. Strangely enough, the arrival of such reënforcements was not an occasion for unmixed rejoicing, for these soldiers were mostly mulattoes and mestizos who, reported Sgt. Maj. Nicolás Ponce, were not highly regarded for their courage in the Queen's cause.

To give impetus to the belated Spanish preparations for the defense of Florida, an English settlement that became Charleston, S. C., was founded in 1670. The Florida frontiersmen saw the need for vigorous action—for uprooting the new colony before it waxed too strong. Under the command of Juan Menéndez Márqués, a small St. Augustine fleet sailed northward. However, the winds blew stormy as they had for the French fleet before St. Augustine in 1565, the Spanish fleet was scattered, and the fledgling English colony was saved. Then Mariana's treaty with England forbade the disturbance of established English settlements, so with the English only a 2 days' sail from St. Augustine there was nothing left to do but prepare to defend Florida against certain invasion. To the frontier at Santa Catalina Mission on the Georgia coast a small garrison was sent. And construction of a Florida citadel, built of imperishable stone, was soon to begin.

BEGINNING THE CASTILLO

To start the work at St. Augustine, Queen Mariana chose Don Manuel de Cendoya, gave him the governorship of Florida, and sent him to Mexico City to confer with the Márqués de Mancera, Viceroy of New Spain.

Cendoya's first task was to collect the promised 12,000 pesos for starting the job, and that accomplishment he reported in the middle of January 1671. The disquieting news of the English settlement of Charleston gave point to his discussions with the Marqués.

On his way to Florida, Cendoya stopped at Havana, looking for skilled workmen—masons and lime burners. There he found an engineer, Ignacio Daza. It was on August 8, 1671, that the first workman began to draw his pay. By the time the mosquitoes were sluggish in the cooler fall weather, the coquina pits on Anastasia Island were open, and two big limekilns were being built just north of the old fort. The carpenters put up a palm-thatched shelter at the quarries; they built a dozen large, square-end dug-outs and laid rafts over them for hauling stone for the fortification and firewood and oyster shells for the limekilns; and they built boxes, handbarrows, and *carretas* (long, narrow, hauling wagons). At his anvil, the blacksmith made a great noise, hammering out axes, picks, and stonecutters' hatchets, and putting on their steel edges; drawing out the bars to the proper length and flattening their ends for crowbars; working shapeless masses of iron into shovels, spades, hoes, and wedges; and for lighter work, making nails of all kinds and sizes for the carpenters. The grindstone screeched as the cutting edges went on the tools.

In the quarries 3 leagues from the presidio, Indian peons chopped out the dense thickets of scrub oak and palmetto, driving out the rattlesnakes and clearing the ground for the shovelers to uncover the top layer of coquina. Day after day Alonso Díaz, the quarry overseer, kept the picks and axes going, cutting deep grooves into the soft yellow stone, while with bar and wedge the peons broke loose and pried up the rough blocks—small pieces that a single man could shoulder, and tremendously heavy, waterlogged cubes 2 feet thick and twice as long that six strong men could hardly lift from the bed of sandy shell. As a layer of stone was removed, again the shovelmen came in, taking off the newly exposed bed of loose shell and uncovering yet another and deeper stratum of rock. Down and down the quarrymen went until their pits reached water and they could go no farther. Díaz watched his peons heave the finest stone on the wagons. He sent the oxen plodding to the wharf at the head of a marshy creek, and carefully balanced the load of rough stone on the rafts for ferrying across current to the building site. And on the opposite shore of the bay, next to the old fort, the pile of unhewn stone daily grew larger, while the stonecutters plied their squares and chopped unceasingly to shape the soft coquina for the masons.

In the limekilns, oyster shells glowed white-hot and changed into fine quality, quick-setting lime. By spring of 1672, there were 4,000 *fanegas* (some 7,000 bushels) of lime in the two storehouses, and the great piles of



MOST OF THE ROOMS OPEN INTO THE SQUARE COURTYARD OR PARADE OF THE FORT. THE WELL IN THIS CORNER FURNISHED THE ONLY PALATABLE WATER SUPPLY FOR REFUGEES INSIDE THE FORT DURING TIMES OF SIEGE.

both hewn and rough stone were a welcome sight to the people of St. Augustine.

Though it was only preparation for the main job, great obstacles had already been overcome. Very little masonry had ever been done in the presidio, and, with the exception of the imported artisans, the workmen had to be trained. Even the imported ones had much to learn about coquina, the natural shellrock peculiar to this section of Florida. Coquina is nothing more than broken sea shells cemented together by their own lime. Where the layer of shells has been under great pressure, the rock is solid and hard; where pressure has been less, the stone is coarse and easily crumbled. The men had to become expert in grading the stone, for only the hardest and

finest rock could go into the fortification. There was also a shortage of common labor. When there should have been 150 men to keep the 15 artisans working at top speed—50 in the quarries and hauling stone, 50 for gathering oyster shells and helping at the kilns, and another 50 for digging the foundation trenches, carrying the baskets of sand, and mixing mortar—it was hard to get as many as 100 laborers on the job.

Indians from three Nations, the Guale (Georgia), Timucua (eastern Florida) and Apalache (western Florida), were called upon for labor. Some of them had to travel 80 leagues to reach the presidio. Many of them served unwillingly. There were serious domestic problems, for these peons had the choice of bringing their families with them or leaving the women and children in the home villages to eke out their own living. In some cases, not even the chiefs were exempt from the draft. In theory each complement of Indian labor served only a certain length of time; in practice it was not uncommon for the men to be held much beyond their assigned time, either through necessity or carelessness. One wretched chief was forced to labor on the works for more than 3 years without once returning to his own lands. Some of the Indians were used as servants by the Governors. True, the Indians were paid for their labor. Even the Apalaches, condemned years before to labor on the fortifications as the penalty for rebellion, apparently received a wage.

The Indian peon was cheap labor—1 real (12½¢) per day, plus rations of maize—but he was not good labor, for by nature the Indian was unfit for heavy work on a European-style fortification. A brave might play the bone-breaking game of Indian ball for a full day, but he could not stand up under the “day-in, day-out,” grinding, back-straining labor of the quarries. Not all the Indians, however, were common laborers. A half dozen developed into carpenters, and though they did not receive the top wage of 10 to 12 reales, they seemed well pleased with their 8 reales—which was twice what apprentice carpenters earned.

In addition to Indian labor, there were a few Spanish peons who were paid 4 reales per day, a few of the Crown's Negro slaves, and a number of convicts, either from the local presidio or sent from Caribbean ports. The convicts served terms of varying length, depending upon the nature of their crimes. A typical convict might have been the Spaniard caught smuggling English goods into the colony, and he was condemned to 6 years' labor on the fortifications at St. Augustine. If he tried to escape, the term was doubled and he faced the grim prospect of being sent to a fever-infested African presidio to work it out.

Spanish skilled labor included the military engineer, Ignacio Daza, who was paid the top wage of 3 pesos per day. Daza died within a year of his

arrival in Florida, so the Crown paid only the surprisingly small sum of 546 pesos (about \$862) for engineering services in starting the greatest of Spanish Florida fortifications. Of the artisans, there were Lorenzo Lagones, master of construction, and a pair of master masons, each of whom received the master workman's wage of 20 reales (about \$2.50) per day. In addition there were 7 masons at 12 reales, 8 stonecutters at the same rate, and a dozen carpenters whose pay ranged from 6 to 12 reales per working day.

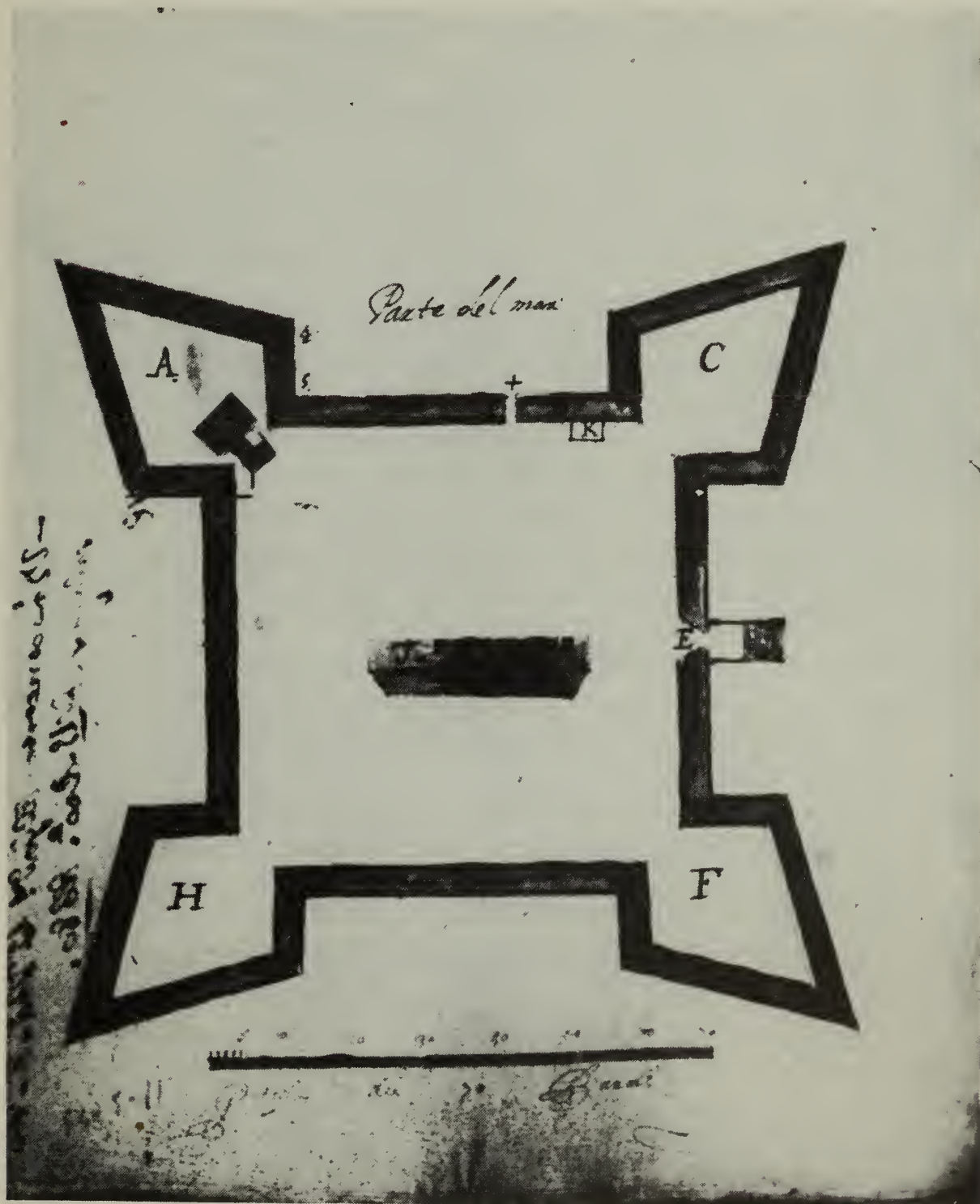
There were few men for the job in hand, and to speed the work along Governor Cendoya had to be ingenious and resourceful. Constantly on the lookout for labor, he seized the opportunity of using prisoners from the Carolina Colony, and, ironically enough, they were of exceptional help in building this defense against their own countrymen. Back in 1670, a vessel bound for Charleston Harbor accidentally put in at Santa Catalina Mission, the Spanish frontier post near the Savannah River. William Carr and John Rivers were captured. A rescue expedition set out from Charleston, and when the sloop arrived at the Mission, Joseph Bailey and John Collins took a blustering message ashore. For their pains, they were dispatched with Rivers and Carr to St. Augustine. There, from time to time, they were joined by other English prisoners.

The Governor did not long hesitate in putting them to work. Three of the prisoners turned out to be masons, and the Spanish form of their names—Bernardo Patricio (for Bernard Patrick), Juan Calens (for John Collins), and Guillermo Car (for William Carr)—appeared on the pay rolls. Some of the Englishmen entered into the life of the presidio as permanent residents. At least one of them took a Florida bride. Although the Spanish were cautious in depending too much upon the fealty of these Englishmen to the Spanish Crown, there was little occasion to denounce their unwillingness to serve.

John Collins especially pleased the Spanish officials. He could burn more lime in a week than Spanish workmen could in twice the time, and what was also to the point, as a prisoner he had to be paid only 8 reales instead of the 20 due a master workman. This Juan Calens appeared to like St. Augustine. He rose steadily in the Crown's employ from master of the kilns to quarry master. Next he took charge of the dugouts, the provisions, and the convicts. Eventually he held even the important office of pilot from St. Augustine to Charleston. Royal recognition of his zeal and loyalty was the culmination of his 19 years or more of service in the presidio.

Another unusual case developed a few years later. Some leagues north of St. Augustine, 11 Englishmen were captured. All of them except one Ransom were committed to the galleys. Ransom was to be hanged. On the appointed day this man ascended the scaffold. The hangman put the

noose about his neck. The trap opened. The rope jerked taut, then broke. Down tumbled Ransom, safe and sound. While the onlookers marveled, the friars took it as an act of God and led Ransom to sanctuary in the Convent of San Francisco. Word reached the Governor that this man was an ingenious fellow, an artillerist, a carpenter, and, what was most remarkable, a maker of "artificial fires." Ransom was offered his



SALAZAR'S PLAN OF THE CASTILLO SHOWS CONSTRUCTION TO 1680.

life if he would leave sanctuary, live "protected" within the fort, and put his talents to use. He agreed and, like Collins, was exceedingly helpful, for none other in the presidio had such abilities.

All told, there were close to 150 men working in those first days of feverish preparations. They, along with about 500 other persons, including about 100 effective soldiers in the garrison, a few Franciscan friars, a dozen mariners, and the townspeople, had to be fed. When supplies from New Spain did not arrive, the problem of providing food was even more difficult than finding men to work on the fort, especially since the sandy soil around the presidio yielded poorly to the primitive agricultural practices of the seventeenth century.

Indian corn or maize was the staple, and most of the planting, cultivating, and harvesting of the extensive fields near the town was done by Indians brought from their provinces to do the work, so that at times there were as many as 300 Indians serving the Crown in the presidio, counting those at work on the fortification. The Indian peons were furnished rations of maize both while they were in St. Augustine and for their journey over the wilderness trails to their homes, and certain of the convicts were also given a ration of Indian corn. This native corn cost the Crown $7\frac{1}{2}$ reales per arroba (25 pounds) and an arroba lasted the average Indian only 10 days. Flour was imported from New Spain at a cost of 10 reales per arroba, and the master workmen, the English masons, and the Spanish convicts were given rations from this store. In addition, these convicts received a ration of meat. Fresh meat was not plentiful, but the waters teemed with fish and there were plenty of shellfish. A paid fisherman kept the men supplied. There were few garden vegetables. Squash grew well in the sandy soil, and there were beans and sweetpotatoes, citron, pomegranates, and figs. The orange had already been introduced. And of course there were the favorite seasonings of onion and garlic. Withal, however, it must be remembered that St. Augustine was not a self-supporting settlement. After a century of existence, it still depended for its very life upon the subsidy from New Spain.

As the long, hot days of the second summer shortened into fall, Governor Cendoya saw that after a year spent in gathering men and materials he was ready to start construction.

No long-drawn-out survey and detailed study helped to locate the castillo, for the Spanish had learned their lessons by a century and more of experiment on the shores of Matanzas Bay. Engineer Daza and Governor Cendoya decided that the new fort should be erected on the west shore of the bay by the side of the old fort, a site which took into account every natural defense feature of the harbor. Here, the enemy would find it almost

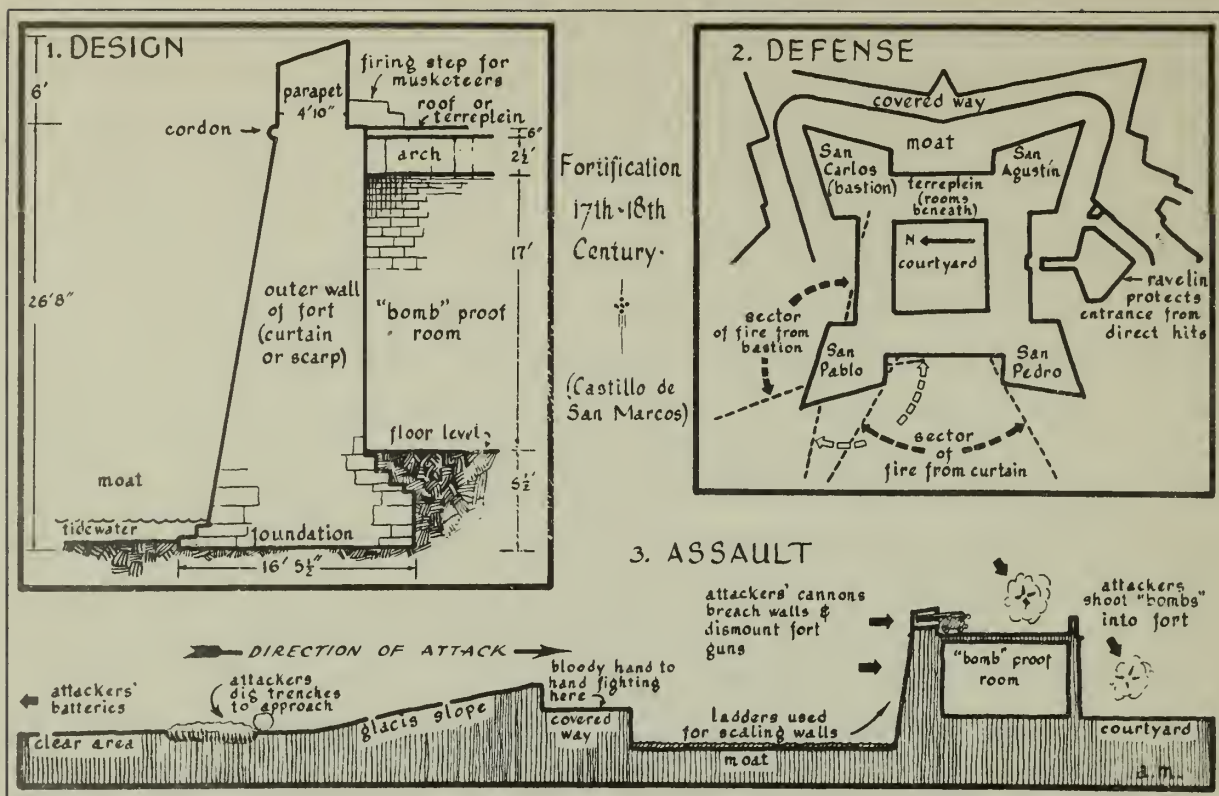
impossible to bring his heavy siege guns within range. A shallow bar at the channel entrance kept the bigger warships out to sea. Any other vessel entering the harbor had to pass under the fort guns. The town and the fort were on a narrow peninsula surrounded on three sides by water or impassable marsh; the fourth side—the northern neck where the old fort stood—was constricted by a meandering creek. Beyond the marshes was wilderness—the pine barrens and cypress swamps, palmetto scrubs, and oak groves. Roads were but Indian trails and the quickest passage from one coastal fortified post to the next was along the inland waterway in dugouts. Attackers might march quickly down the coast on the wide, hard beaches (provided they could cross the numerous estuaries on the way), but they were still faced with an advance over broad river and marsh before they could reach the fort.

Nor was it a problem to work out the plan for the castillo. Both Daza and the Governor liked the design of the old fort. They, meeting with the General Council, decided merely to build the castillo slightly larger in order to make room for quarters, guardroom, chapel, wells, ovens, powder magazine, and other essential rooms not included in the old fort. In line with the more recent ideas, Daza recommended a slight lengthening of the bastions. All around the castillo they planned to dig a broad, deep moat, and then surround the land sides with a high palisade.

It was a simple and unpretentious plan, but a good one. Daza was apparently schooled in the Italian-Spanish principles of fortification as developed from the sixteenth century designs of Francesco de Marchi, for Sébastien de Vauban, the great French engineer, was still but a young man in 1671. Little is known about Ignacio Daza, but if he were the typical military engineer, he was nothing if not practical. And Daza, if he were typical, was more than a draftsman. For a military engineer, it was “not sufficient to know how to draw plans, profiles and landscapes; to understand a few propositions in geometry, or to know how to build a wall or a house; on the contrary, he ought to be well grounded in all the most useful branches of the mathematics, and how to apply them to practice, natural philosophy, and architecture; have a good notion of all kind of handicraft works; and above all things, to be well versed in mechanics.”

THE YEARS OF CONSTRUCTION

So the actual construction finally began. It was indeed the occasion for a ceremony. About 4 o'clock Sunday afternoon, October 2, 1672, Governor Cendoya gathered together the official witnesses, and, to record the event for the information of Queen Mariana and for his own protection, he



commanded the public scribe, Juan Moreno, to be present. Into his hands Cendoya took a spade. He walked to a likely looking spot between the strings marking out the lines of the new fortification, drove down his spade, and thus broke ground for the foundations of Castillo de San Marcos, worthy successor to the name that for almost 100 years had been used for the forts of the St. Augustine presidio. All this and more, Juan Moreno noted. Characteristically, he faithfully certified that not only was the work started that Sunday afternoon, but it continued, and that at most of it he, the notary, was present. Because he wrote the certification on ordinary paper, Juan explained that he was out of official stamped paper.

It was little more than a month later, on Wednesday, November 9, that Cendoya laid the first stone of the foundation. The people of St. Augustine must have wept for joy at these tangible signs of progress. All were glad and proud, the aged soldiers who had given a lifetime of service to the Crown, the four little orphans whose father died in the pirate raid a few years before, the widows and their children, the craftsmen, the workmen, the royal officials, some of whom served as their fathers had before them; but none could have been more pleased or proud than Don Manuel de Cendoya, who of all the Florida Governors had been the one chosen by Providence to have the honor of starting the first permanent Florida fortification of Her Catholic Majesty.

Laying the foundations of the mighty fort was no easy job, for not only was the soil sandy and low, but as the winter months came the Indian peons

were struck by *El Contagio*—The Contagion—and the laboring force dwindled to nothing. The 30 Negro slaves to be sent from Havana had not yet come. Cendoya himself and his soldiers took to the shovels and as they dug a trench some 5 feet deep and 17 feet broad, the masons laid two courses of heavy stones directly on the hard-packed sand bottom. Slow work it was, for high tide flooded the trenches.

About a foot and a half inside the toe of this wide foundation, the masons stretched their line marking the scarp or curtain wall, which was to taper gradually from a 14-foot base to approximately 9 feet at its top, some 25 feet above the foundation. In the 12 months that followed, the north, south, and east walls rose steadily, but since the layout of the new fort overlapped the old wooden fort, no work could be done on the west until the old fort was torn down. By midsummer of 1673 the east side of the work was 12 feet high and the presidio was jubilant over the arrival of 10,000 pesos for carrying on.

This good news was tempered, however, by the Viceroy's assertion that he would release no more money for the new St. Augustine fort without an express order from the Crown, and by the realization that the work was going too slowly. Cendoya had already appealed to Her Majesty to increase the allowance to 16,000 pesos annually so that the construction could be finished in 4 years, for, as he put it, the English menace at Charleston brooked no delay. There was already news that the English were outfitting ships for an invasion.

But slowly and more slowly the building went, especially after Cendoya left in 1673 and the leadership devolved upon Sgt. Maj. Nicolás Ponce, in whom the local Spaniards had little confidence. Events worked against Ponce. The Viceroy continued to exhibit a discouraging reluctance to part with money for the project, even in the face of evidence that English strength was daily increasing, especially among the Indians. The presidio was damaged by storms and high tides that undermined houses, polluted wells, and flooded fields and gardens. Sickness took its toll of peon and townsman alike. Then in the spring of 1675 another provision ship was lost and Ponce was forced to take all the peons from work on the castillo for the long march to Apalache, where he hoped to get provisions from the Indians. Only the handful of masons were left to carry on the work.

Not until May was half gone did the pall of discouragement lift, as the long-awaited ship from the Viceroy safely crossed the bar. There were supplies and a new Governor for Florida—Capt. Gen. Don Pablo de Hita Salazar—hard-bitten veteran of the Flanders campaigns, who tackled his new job with an energy and enthusiasm that would have done credit to a much younger man. Salazar's career in the royal service had been "no

other than the harquebus and the pike," and evidently it was as a soldier of reputation that he was assigned to the Florida province, for in addition to carrying on the fortification work he was charged to "dislocate" the Charleston settlement. Led to believe that the Viceroy could be depended upon for assistance in the difficult task ahead, time and again during his short stay in Mexico City he outlined his problems, only to find that colonial official singularly reluctant to help. At last the old fellow left in disgust for St. Augustine. Here, in spite of the fact that the work had been dragging, he found things that pleased him: "Although I have seen many Castillos of consequence and reputation," wrote he to the Crown, "in the form of its plan this one is not surpassed by any of those of greater character . . ."

Furthermore, the Governor endorsed the statement of the royal officials, who were eager to point out the brighter side of the picture: "It is certain, Señor, that according to the excellence of It and the plan of the Castillo in the form that is called for, if it had to be built in another place [than St. Augustine] it would cost a double Amount because there will not be the Advantage of having the peons, at a Real of Wages each day, With such tenuous sustenance As three pounds of maize, nor will the overseers and artisans work in other places With such Small Salaries . . . Nor will there be Found the Stone, Lime, and Other materials so close at hand and with the Convenience that there is in the Pressidio."

These citations of economies were timely, for 34,298 pesos had already been spent upon the new fort, and still it was no more protection than a haphazard pile of stone. Nor was the old fort any defense. If an artilleryman had the temerity to touch his match to a cannon, the sparks from the explosion might well set the timber walls afire. The enemy at Charleston was not 70 leagues away; his 200 fighting men outnumbered the effectives in the Spanish garrison, while, according to the reports of English deserters, Charleston was rather well defended by a stockade fort mounting about 20 guns. With characteristic realism Don Pablo set about making his own fortification defensible.

The bastion of San Carlos—the northeast salient of the castillo—was the nearest to completion. Salazar concentrated on finishing it, so that cannon could be mounted on its deck or terreplein. While the masons were busy at that work, the Governor took his soldiers and demolished the old wooden fort, using the best of its wood to build a palisade across the open west end of the castillo so that the garrison, if need be, would be surrounded by a protecting four walls. In the last half of 1675 building went ahead with remarkable rapidity. Not only did Salazar complete San Carlos (except for a section of parapet where building materials were hauled in), but he raised the three stone walls to their full height; and his wooden palisade on the

west looked as strong as the other curtains or walls, for he built it with two half bastions, faced it with a veneer of stone, and dug a ditch in front of it.

Inside the fortification, both carpenters and masons worked on temporary buildings. A small, semicircular powder magazine was built near the north curtain. A long, narrow, wooden structure, partitioned into guard-houses, lieutenant's quarters, armory, and provision magazine, soon took shape behind the western palisade. Only one permanent room had been started, and that was the powder magazine—later destined to become the “dungeon”—in the gorge of San Carlos. Salazar lost no time in completing this magazine and building a ramp over it to give access to the fighting deck above. At San Agustín bastion on the southeastern corner the peons dumped hundreds of baskets of sand and rubble between the enclosing walls to fill them up to the 25-foot level. Then a few of the guns from the old fort were mounted in San Carlos and San Agustín and along the palisade. After 5 years of work the castillo was a defense in fact as well as name, and the people of the presidio could breathe more freely.

Bit by bit the work went on, in spite of trouble with the Choctaws, in spite of the worrisome impossibility of driving out the Carolina settlers, in spite of the pirate destruction of the Apalache outpost in the west and the ever-present fear of invasion. But when the supply vessel carrying desperately needed provisions and clothing journeyed safely all the way from New Spain, only to be miserably lost on a sand bar within the very harbor of St. Augustine, it was a heartbreaking loss. Salazar became disconsolate. The help he begged from Havana never came; for 4 years he had missed no opportunity to write the Viceroy regarding the serious needs of the presidio, and for 4 long years he had not a single reply to his letters. Old, discouraged, sick, Salazar wrote to the Crown that in this remote province he was “without human recourse.” Opposition and contradictions from the royal officials on his staff added to his burdens.

Yet the old warrior did not give up. Finally the Viceroy released 5,000 pesos more for the work. As soon as Salazar got up from his sickbed he was back at the fort. The masons and stonecutters were leveling the tops of the curtains and the western bastions; the sweating laborers dumped their loads of rubble between the inner and outer courses of the massive walls. The Governor looked on, impatient with the snail's pace of progress. Many of his artisans were gone. Some had died. With another 5,000 pesos and a few more masons from Havana, said the old Governor, “I promise to leave the work in very good condition. . .” Before he could make good that promise, he was replaced by Juan Cabrera, who arrived in the fall of 1680 to take over the reins of government.

Cabrera and his master of construction, Juan Marqués, carefully checked

the construction. They found a number of mistakes and the blame had to be laid upon the now deceased construction master, Lorenzo Lagones. Either incompetent or careless, Lagones had started to put the cordon (on which the parapet was to be built) on the northwest bastion of San Pablo a good 3 feet below where it should have been. Some of his work elsewhere had to be torn out and rebuilt. This was the outcome of those long years without an engineer.

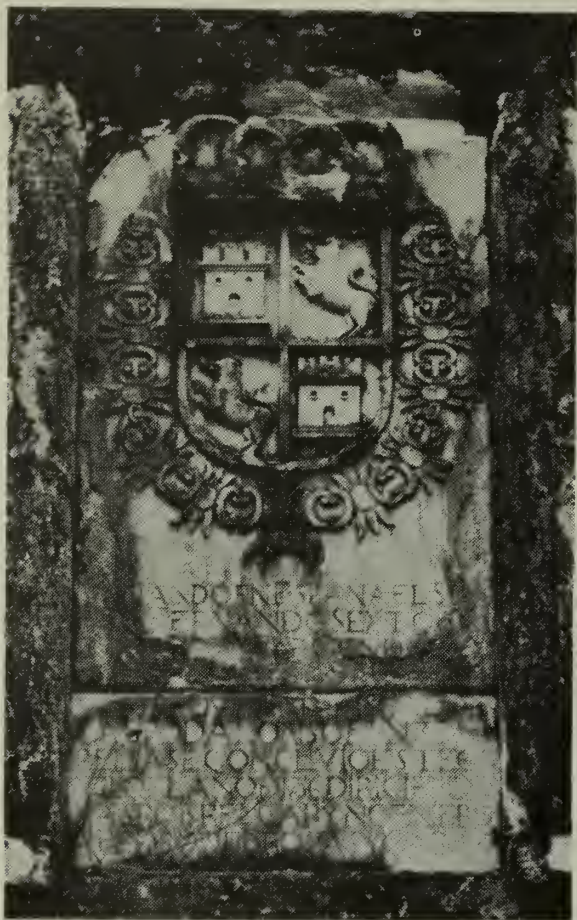
Half apologizing for his own little knowledge of "architecture and geometry," Salazar left the trials and tribulations of this frontier province to his more youthful successor. Salazar had done a great deal. Within a short 6 months after his arrival he had made the castillo defensible against any but an overwhelming force, then during the remainder of his 5-year term, over one obstacle after another he slowly raised all the permanent walls so that there was now little left to build inside the fort—the rooms and Lagones' mistakes excepted. San Carlos even had the firing steps for the musketeers and embrasures for the artillery—though that small gap for hauling materials was still there. The curtains were almost ready for the parapet builders, since in most places the core of fill was within a yard of the top. The only low part of the work was San Pablo, where the level had been miscalculated. The main doorway, its iron-bound door, and drawbridge—the work of a convict—was finished. Another heavy portal closed the emergency doorway in another curtain. There was a small temporary chapel in the shadow of the eastern wall.

Governor Cabrera found his hands full. The 1680's were turbulent years. Already the English had struck at Santa Catalina, and that mission outpost was abandoned soon thereafter. Other raids by Englishman, Indian, and pirate drove the padres and their charges to the coastal islands south of the St. Marys River. Heathen Indians carried away their Christian cousins into English slavery. Cabrera bided his time. He had other worries. If spring marked the turn of a young man's fancy, it was no less the season the corsairs chose to "run" the coasts of Florida. Each year the buccaneers grew bolder. In 1682, the year Cabrera finished the fort ravelin, there were a dozen or so pirate craft operating in the Bahama Channel, and they took a number of Spanish prizes, including the St. Augustine frigate on its way to Vera Cruz for the subsidy.

In this state of affairs, it was strange that Governor Cabrera found time for construction work. But he was a man who put first things first. From Havana, the nearest source, he asked help, and out of Havana came a military engineer for an occasional look at the castillo. He did little more than put Cabrera's problems right back on Cabrera's own capable shoulders. In order to hasten the work, the Governor asked the local curate for



THE LARGE CORNER FIREPLACES IN THE GUARDROOMS WERE USED BOTH FOR
HEATING AND COOKING.



THE ROYAL ARMS OF SPAIN, ERECTED OVER THE ENTRANCE IN 1756, COMMEMORATE COMPLETION OF THE CASTILLO.

permission to work his men on holy days. There was ample precedent for granting this concession, but Cabrera had never got on well with the religious, and he was refused. As a result, the peons could not bring in materials. Construction fell almost a year behind schedule. Governor Cabrera appealed the decision to higher church authorities, and the permission to work on Sundays and holidays was eventually forthcoming, though it applied only to actual work on the fort, and that only during emergencies. The dispensation, however, came too late; Cabrera's fear of attack had not been ill-founded.

On March 30, 1683, English corsairs landed a few leagues south of the *Centinela de Matanzas*, the watchtower at Matanzas Inlet, some 4 leagues from St. Augustine and near

the south end of Anastasia Island. Under cover of darkness, some of the invaders crept up behind the tower and surprised the five sentries, who were either asleep or not on the alert. The next day, the pirate march on St. Augustine began. To within half a league they came. Fortunately for the presidio, an advanced sentry chanced to see the motley band, and posthaste he went to Cabrera, who dispatched Capt. Antonio de Argüelles with 30 musketeers to ambush them. The pirates walked straight into a withering fire and after a few exchange shots—one of which lodged in Captain Argüelles' leg—they beat a hasty retreat back down the island to their boats. Then they sailed to St. Augustine bar and dropped anchor in plain sight of the unfinished castillo.

Cabrera, his soldiers, the men and even the women of the town were working day and night to strengthen the castillo. Missing parapets and firing steps were improvised from dry stone. Expecting the worst, the residents of the presidio crowded into the fortification, but the corsairs, nursing their wounds and without even scouting the undefended town, decided to sail northward on a hunt for easier prey.

After the excitement, work went forward with renewed zeal. Once

again danger had passed by, but luck would not hold much longer. The portcullis or sliding grating at the fort's entrance, the bridges, the encircling palisade, the rooms surrounding the courtyard, all came nearer and nearer to completion. This was progress made in the face of poverty and hunger—want that made the people demand of Cabrera that he buy supplies from a stray Dutch trader. It was unlawful, but people had to eat. Imagine the joy in the presidio shortly thereafter when two subsidy payments arrived at one time! Cabrera gave the soldiers 2 full years' back pay and had on hand enough provisions for 14 months; the 27 guns, from the little iron 2-pounder to the heavy 40-pounder bronze, all were equipped with gunner's ladles, rammers, sponges, and wormers; there was plenty of powder and shot; and San Carlos bastion had its alarm bell.

Still the work went on. There were continual distractions, such as the pirate Agramont's raids in the Guale country and even on Matanzas in 1686, but by the summer of that year the main part of the castillo was essentially finished. Within the four curtains stood the thick courtyard walls, and pine beams a foot thick and half again as wide spanned the 15 to 20 feet between. Laid over these great beams was a covering of pine planking some 4 fingers thick, and under that heavy roof were more than 20 rooms for the quarters, the chapel of San Marcos, and the magazines for powder, food, supplies, and equipment.

Even the doors and windows were practically done. Now, with the roof or terreplein in place all around the castillo, the artillerymen no longer had to climb down into the courtyard to get from one bastion to the other, and the musketeers and pikemen had no trouble reaching their stations along the walls. Only a few of the higher parts of the parapet between the gun openings and firing steps for these defenders were still lacking. Outside the walls, a ravelin guarded the main doorway. The moat wall was from 6 to 8 feet high. The only major work yet to be done was finishing the moat excavation and the shore defenses on the bay side of the castillo.

With the fortification so far along, the Governor could afford to give more attention to other business in the province. There was the matter of Lord Cardross' Scotch colony at Port Royal, S. C., a new and obnoxious settlement that encouraged the savage raids on the mission Indians. It existed in territory recognized as Spanish even by the English monarch. Out from St. Augustine in the stormy month of September 1686, Cabrera sent Tomás de León with three ships. León completely destroyed the Cardross colony and sailed northward to sack and burn Governor Morton's plantation on Edisto Island. Then the Spaniards set their course for Charleston. Again, as it had 16 years before, a storm came up to save the hated and feared English colony. León's vessel, the *Rosario*, was lost,

and he along with it. Another of the trio was beached, and the last of the little armada limped slowly back to St. Augustine. Cabrera had his revenge, but the Georgia country remained irrevocably lost to Spain. And the contest for the hinterlands had begun.

The traders led the advance from Charleston; Cabrera sent soldiers and missionaries from St. Augustine to western Florida to bolster the Indians against them. For the Spanish, it was a losing fight—an exciting, exasperating struggle of diplomacy and intrigue, trade and cupidity, war and religion, slavery and death. The turn of affairs on the frontier and the threat of reprisal by the Carolinians sent Capt. Juan de Ayala directly to Spain for help, and he came back with 100 soldiers, the money for maintaining them, and even a Negro slave to help cultivate the fields. The single Negro, one of a dozen Ayala had hoped to deliver, was a much-needed addition to the colony, and Captain Ayala was welcomed back to St. Augustine with rejoicing “for his good diligence.” Soon there was more Negro labor for both fields and fortifications.

From the Carolina plantations, an occasional Negro slave would slip away, searching his way southward along the waterways. In 1688 a small boat loaded with eight runaways and a baby girl found its way to St. Augustine. The men went to work on the castillo at 4 reales a day and the Governor took the two women into his household for servants. It was a fairly happy arrangement, for the slaves worked well and soon asked to become Catholic. A few months later, William Dunlop came from Charleston in search of them. The Governor, reluctant to surrender these converted slaves, offered to buy them for the Spanish Crown, and to this offer Dunlop agreed, even though the Governor was short of cash and had to promise to pay for them later. To seal the bargain, Dunlop gave the baby girl her freedom.

Obviously this incident could set a precedent, especially since the Spanish Crown eventually liberated the Negroes. Here was a basis for profitable slave trade from the Carolinas had the Florida province been richer and Spanish trade restrictions less severe; but since this commerce was illegal and the Crown was hardly in a position to buy every runaway coming to Florida, the 1680's marked the beginning of an apparently insoluble problem. Learning of the reception awaiting them to the south, more and more of the Negroes left their English masters. Few of them could be reclaimed. Eventually the Spanish decreed freedom for any Carolina slave entering Florida, and a fortified village of the runaways was established hardly more than a cannon shot from the presidio. Meantime, growing more serious with each year, the slave trouble eliminated any possibility of amicable relations between the Spanish and English colonists.

Matters were brought momentarily to a focus with the Spanish declaration



THE PRISON OF THE FORT HAS A SINGLE ENTRANCE, WHICH OPENS INTO A GUARDROOM. MASSIVE ARCH CONSTRUCTION MADE THE ROOMS OF THE FORT "BOMB" PROOF.

of war on France in 1690. Cabrera's successor, Diego Quiroga, at the news of enemy vessels off both his northern and southern coasts, wrote a letter reporting a strength far beyond what he had against the chance that the enemy might capture the packet carrying the true news of appalling weakness. For until the outworks could be finished, the castillo was vulnerable to the siege guns and scaling ladders of any large force. Worse, at this crucial time, Quiroga found himself out of provisions. The heavy labor of quarrying, lumbering, and hauling had to be discontinued. With the royal slaves and a few of the Indians, work on the castillo went along in desultory fashion until finally there was "not one pound of maize, meat nor any other thing" to feed the workmen. Fortunate indeed was it that the English did not choose this moment to attack. As fate would have it, England and Spain were for once on the same side of the fence, fighting against France. There was a comparative truce on the Florida border during the 10 years before the turn of the century and on the surface, at least, friendly relations prevailed between the St. Augustine and Charleston colonies. Actually the combatants were girding themselves for the inevitable renewal of hostilities.

Relief came at last to St. Augustine in 1693, and with it came another Governor, Don Laureano de Torres. To lessen the chances of famine in the future, the Florida officials resolved to plant great crops of maize nearby. They found men to plow the broad, field-like clearings around the fort, and acres of waving corn soon extended almost up to the moat. Proudly

they reported this accomplishment to the Crown. The reaction was not what they expected. On December 14, 1693, a royal order was promulgated prohibiting thenceforward the sowing of maize within a musket shot of the castillo. A very large army, said the War Council, could hide in the cornfield and approach to the very bastions without being seen by the sentries.

To Governor Torres belongs the credit for completing the seventeenth century part of the castillo. Somehow he found the means for carrying on Quiroga's beginning, for putting in place the last stones of the water defenses—bright, yellow rock that was in strange contrast to the weathered gray of masonry already a quarter of a century old. This monumental pile of stone, on which Cendoya planned to spend some 70,000 pesos and which Salazar estimated would cost a good 80,000 pesos were it to be built elsewhere, by 1680 had already cost 75,000 pesos. When Cabrera completed the main part of it 7 years later, expenditures had reached 92,609 pesos. By the time Torres put on the finishing touches in 1696, the mounting costs of Castillo de San Marcos must have totaled close to 100,000 pesos, or approximately \$150,000.

And what did completion of this citadel mean? Only a year later, gaunt Spanish soldiers slipped into the church and left an unsigned warning for the Governor: If the enemy came, they intended to surrender, for they were dying of hunger.

DEFENDING SAN MARCOS

The Castillo de San Marcos was a typical example of European design transplanted to the Western Hemisphere. It was a style of fortification evolved from the medieval castle. There was no great change in siegecraft and fortification until the gunpowder cannon came into use, but when that weapon did make its appearance the military engineers found themselves in a predicament. The towering walls of the ancient castles were conspicuous targets for the skilled artillerist. Adamant stone walls that had splintered the powerful crossbow shaft and resisted for days on end the pounding of the catapults tumbled into rubble after a roaring bombardment from heavy siege cannons. So the engineers lowered their targetlike walls, and in front of them they piled thick and high hills of earth to stop the cannonballs before they could hit the stone. Yet, because those walls still had to be too high for the scaling ladders, the surrounding moat was retained. Circular towers common to the older castles eventually gave way to the more scientific bastion, an angular salient from which the pikemen, arquebusiers, and artillerists could see to defend every adjacent part of the fort walls. The ultimate result was a rather complicated series of straight walls and angles—

a sort of defense-in-depth plan—and in the center of it could usually be found the garrison quarters and the magazines.

Fortification was a remarkably exact science, and one that was universally respected. “Many . . . arguments,” wrote an eighteenth-century expert, “might be alledged to prove the usefulness of fortified places, were it not that all the world is convinced of it at present, and therefore it would be needless to say any more about it.” A fort, however, can never win a victory. Primarily a defensive weapon, it protects vital points and delays the invader. It can also be, as was the case with the historic fort in Florida, a citadel and a pivot of maneuver for colonial troops.

For most defense problems, there was an answer in the book, though the brilliance of the engineer might well be measured by his ingenious use of natural defenses, as was the case at Castillo de San Marcos. There were as many different kinds of forts as there were uses for them. They promoted and protected trade, they guarded the pass into a country, or, like San Marcos, they secured the country from invasion. The following dogma, written three-quarters of a century after the castillo was started, might have referred specifically to the fort at St. Augustine: “In small states . . . which cannot afford the expense of building many fortresses, and are not able to provide them when built with sufficient garrisons and other necessities for their defence, or those whose chief dependance consists in the protection of their allies; the best way is to fortify their capital, which being made spacious, may serve as a retreat to the inhabitants in time of danger, with their wealth and cattle, till the succours of their allies arrive.”

To attack a seventeenth- or eighteenth-century fort, the enemy had first to cross natural barriers, advance over level ground where he was exposed to fire from almost every part of the fortification, drive the defenders from the outer works, cross the moat, and then, if there were any of him left, scale the main walls and fight the rest of the defenders hand to hand. It was no easy job. His approach to within striking distance generally involved the laborious digging of zigzag trenches up to the outworks. Meanwhile, his artillerymen tried to get their guns close enough to breach the walls.

Aside from the actual fighting, a serious problem was supplying provisions for the large besieging force, since the invading army was often far from its base and to some extent had to live off hostile country. On the other hand, once the attacker brought his artillery to bear, the garrison and refugees found themselves in the unpleasant position of stationary targets, subjected to devastating fire, particularly from the heavy mortars throwing 50- or 100-pound bombs (exploding shells) into the close confines of the fortification. And if the enemy isolated the fort, as he invariably tried to do, the length of the siege was often proportionate to the amounts of food and water

inside the fort. For this reason, at least 5 of the 20 main rooms in Castillo de San Marcos were given over to food storage, and three wells were dug in the coutryard. As long as the provision magazines were well filled, the citadel was strong.

The test of its strength was not long delayed, for the border squabbles between Spaniard and Englishman soon flamed into open warfare. The Florida Governor, Joseph de Zuñiga, a Flanders veteran well-versed in the art of fortification, looked at the St. Augustine defenses with jaundiced eye. True, the castillo was a bulwark, but its guns were not only obsolete—many of them were unserviceable. The heavy powder supplied from New Spain so fouled the gun barrels that after “four Shots, the Ball would not go in the Cannon.” Harquebuses, muskets, powder, and shot were sorely needed. Captain Ayala, again sailing to Spain for aid, was racing against time; it was 1702 and James Moore, Governor of Carolina, was already marching on St. Augustine.

At this critical hour, help came from Havana. Threescore skilled Gallegos (Spanish soldiers native to Galicia) arrived in Florida and set about reconditioning the ordnance, but before Spanish preparations were completed Moore’s forces arrived, encircled the fort, and occupied the houses of the townspeople, who could do nothing other than flee to the shelter of San Marcos. On the south side of the fort where the outskirts of the town crept near, the Spanish burned many of their houses which might have given shelter to English troops advancing toward the fort.

Moore’s fighting forces of 800 Englishmen and Indians vastly outnumbered the Spanish garrison, but he was ill-equipped to besiege the fortification. Four cannons he had, and the Spanish boasted that a continuous fire from the fort walls kept him out of range. Indeed the Gallegos were useful! Moore settled down to await the arrival of more artillery from Jamaica, and thus matters stood when a pair of Spanish men-of-war sailed from the south and blocked the harbor entrance. With little hesitation, Moore burned his eight vessels, left many of his stores, and retreated overland to his province, leaving much of St. Augustine in ashes.

The Spanish estimated that the damage to the town amounted to 20,000 pesos or more, and the ease with which the English had occupied and held the town for almost 2 months made it clear that additional fortifications had to be built. In the quarter century that followed, out from the castillo went strong earthworks and palisades, strengthened at strategic points with redoubts, and St. Augustine became a walled town, secure against invasion as long as there were enough soldiers to man the walls. The years of building these town defenses were lean years. In 1712 came *la Gran Hambre*—the Great Hunger—and in those dark days the starving people ate

even the dogs and cats until the storms isolating the colony finally abated.

But the work was done, and when in 1728 another South Carolinian, Colonel Palmer, marched against the presidio, the sight of the grim walls of the fort, the unwinking readiness of the heavy guns, and the needle-sharp points of the yucca plants lining the town palisades were a powerful deterrent. He "refrained" from taking the town. For their part, the Spaniards set off their artillery, but they made no sorties.

Nevertheless, Palmer's bold march to the very gates of St. Augustine foreshadowed coming events, and the Spaniards again made ready, for the castillo now began to show its half-century age and the wooden palisades were rotting. That capable engineer and frontier diplomat, Don Antonio de Arredondo, came from Havana to inspect the Florida fortifications and make recommendations. Backed by Arredondo's expert opinions, Governor Manuel de Montiano put all the cards on the table in a letter to the Havana Governor: "For Your Excellency must know that this castle, the only defense here, has no bombproofs for the protection of the garrison, that the counterscarp is too low, that there is no covered way, that the curtains are without demilunes, that there are no other exterior works to give them time for a long defense; but that we are as bare outside [the castle] as we are without life inside, for there are no guns that could last 24 hours, and if there were, we have no artillerymen to serve them."

Unlike many of his predecessors, Montiano had the ear of the Cuban Governor. Guns and men came from Havana. There was money to strengthen the fortifications and in the summer of 1738 began the work of tearing down the old rooms inside the fort and laying foundations for the 28 great arches that were to make the new rooms proof against English bombs. While the carpenters were setting up the forms for the arches, while the quarries and the limekilns were again the scenes of feverish activity, James Oglethorpe in his buffer colony of Georgia was growing stronger and stronger, pushing the Florida boundary ever closer to the St. Johns River—a scant 35 miles north of the castillo.

Then the ponderous arches were finished and hurriedly leveled off with a packed fill of coquina chippings, sand, and shell. Hundreds of bushels of lime went into the tabby or mortar that was spread over the entire roof of the renovated fort to make its terreplein. The tampers beat the wet mixture smooth, and when the first layer was hardened, another and another was added until there was a bed of tabby 6 inches deep. Upon this smooth, hard surface the cannoneers could maneuver their heavy guns and the rooms below were safe under $2\frac{1}{2}$ feet or more of solid masonry; in fact, on the eastern side, where heavy bombardment was most likely, the engineer allowed a minimum thickness of 4 feet. Some of the parapets had to be

rebuilt for modernization. Outside the fort a new stockade was erected to strengthen the covered way, and the walls enclosing the town were reworked. Under Montiano's dynamic leadership and the able supervision of Engineer Pedro Ruíz de Olano, the work was practically finished by 1740. There was no time to spare.

The War of Jenkins' Ear precipitated Oglethorpe's invasion of Florida. When the first English warship appeared off the bar of St. Augustine in June (by the Spanish calendar) of 1740, Montiano hastily sent the news to Havana: here was the long-expected Siege of St. Augustine. Reënforcements had brought the 350-man garrison up to about 750 against General Oglethorpe's force of about 900 soldiers, sailors, and Indians. Oglethorpe landed his guns across the bay from the fort, and as British shells began to burst over the town, the inhabitants, almost 2,000 of them, fled to the fort. "It is impossible," wrote Montiano to the Governor of Cuba, "to express the confusion of this place . . . though nothing gives me anxiety but the want of provisions, and if Your Excellency . . . cannot send relief, we must all indubitably perish." There was no hint of surrender.

For 27 nerve-shattering days the English batteries thundered at the castillo. Newly laid stones at the eastern parapet scattered under the hits, but the weathered old walls of the curtains held strong. As one Englishman observed, the native rock "will not splinter but will give way to cannon ball as though you would stick a knife into cheese. . . ." One of the balls shot away an artilleryman's leg, but only two of the persons sheltered in the fort were killed in the bombardment. The heavy guns of San Marcos and the long-range 9-pounders of the maneuverable Spanish galleys in the harbor held the enemy at bay.

A league to the northward was Fort Mosa, abandoned outpost at the village of run-away Negroes. Oglethorpe's Highlanders occupied it. At dawn, June 26, 1740, a sortie from the castillo surprised the Scotchmen and in the bloodiest action of the entire siege the Spaniards drove out the enemy and burned the palisaded fortification. After that blow, the siege dragged along. While General Oglethorpe and his men battled insects and shifting white sand on the barren, sun-parched shores across the bay, the Spaniards in the cramped quarters of San Marcos watched their supplies dwindle dangerously low. Before long, Montiano's effective troops were reduced by more than half. Nor were the refugees in better shape. Just when the future looked darkest, news came that provisions from Havana had reached a harbor south of Matanzas, far down the coast. Skillfully avoiding the English blockade, Spanish seamen began to bring the provisions along the inland waterway. Oglethorpe made ready to assault the fort, then thought better of it, for the storm season was approaching, his ships were in danger,

and his men were disheartened. To the wonderment of Montiano, the Georgia general suddenly raised the siege on its 38th day and marched back to the north.

THE END OF AN ERA

This was why the castillo had been built—to resist even the highest tide of colonial aggression, to stand firm through the darkest hour. It was the climax, the culmination of years of dogged labor and lean hunger. But it was also the end of a chapter, the closing of an era, for the finis was in sight. The attempted Spanish reprisal in 1742, Oglethorpe's foolish march on the castillo the year following—these were the clumsy joustings of provincials, not the telling thrusts of powerful governments and strong armies. And because to the colonials their destiny was not yet clear, amidst the futile hostilities of the next 20 years the work of improving Castillo de San Marcos went forward. The slight damage suffered during the Siege of 1740 was soon repaired. Montiano and his engineer were indignantly acquitted of malicious and anonymous charges that faulty workmanship—too much sand in the mortar—was responsible.

Long after the stonecutter's hatchet fell silent, the scrape and swish of the plasterer's trowel went on until in 1756 Governor Alonso Fernández stopped work on a new, never-to-be-finished ravelin and stood under the royal coat of arms at the sally port to watch the masons erect the inscription giving credit for completion of the mighty fort to himself and Engineer Don Pedro de Brozas y Garay. It was a politic gesture, for the ceremony was carried out on the name day of King Fernando VI.

This Florida citadel was a simple masterpiece of European military architecture, even though a few courses of stone were still lacking in the outworks. Its every wall covered with a hard, waterproofing, white lime plaster, the castillo reflected the semitropical sunlight with a brilliance reminiscent of the old-time glory of Spain. In the haste of building, the engineers had not neglected ornamentation to keep the structure from starkness and bareness, for well-designed cornices and pilasters threw sharp shadows to relieve the expanses of smooth, white wall. There was color—a strong, darkish red, probably achieved by mixing a clay with the plaster. This color was conspicuous on the sentry towers crowning each bastion.

San Marcos was properly the background for St. Augustine activity, with its white walls rising high above the blue waters of the bay, red-covered towers thrusting toward the clouds, and guns of green-coated bronze and pitted iron looking over the turf and the sweep of the marshes to the gloom of the nearby forests or the surf breaking on the bar. The colorful uniforms of the Spanish soldiers, the severe habit of the friars, the picturesque

garb of the stalwart Indians, no less than the silken magnificence of the Governor and his lady and the presence of an occasional foreign trader, gave this frontier post an interesting character.

The castillo was a busy place, and while in Spanish eyes much may have been lacking, the English looked at it with envy and respect, one Englishman reporting that: "there is 22 pieces of Cannon well mounted on the Bastions from 6 pound'rs to 36. They are very Cautious of the English & will not lett them go on the lines, there is a guard of a Lieutenant a Sergeant & 2 Corporals & 30 Soldiers here who is reliev'd Every Day. There is one Lieutenant a Sergeant & 12 Gunners who is reliev'd once a Week, the Castle is under ye Command of a Lieutenant who is always on it. the Riches of the Place is kept here as is the Privision w'ch is issued from the Town once a Week, there is 5 Centries on ye lines at a time all Night ye Man that is at the Bell Strikes it every 3. or 4. Minutes the Centry's Calling from one to the other . . .

"There is a Mote Round it of 30. feet wide & a draw Bridge of about 15 feet long, they draw every Night & lett it down in the Morning. . . "

Ironically enough, before the eighth anniversary of the Fernández plaque, the *alerta* of the Spanish sentry was replaced by a challenge in English, for in 1763 the diplomats gave Florida and the castillo to England.

It was some years before the English put their ineffaceable mark on the fort, but in the summer after Lexington and Concord they went to work. The gates were repaired and the well in the courtyard, become brackish, was re-dug. A new palisade for the covered way was built and the glacis—the encircling earthwork—repaired. Several of the high arched rooms were given a second floor, in a sense a second story, in order to make more room for long bunkshelves, for St. Augustine was regimental headquarters and many red-coated troops were quartered in the Castle of St. Mark. Within the safety of the thick walls were stored the arms that went to ranger, regular, and Indian ally alike for repeated use against the rebellious colonials to the north. And a goodly number of those colonials and their friends languished in the damp prison of the castle.

Those were exciting times, but they were only an interlude. The Union Jack was not the flag for the fort. When the Spanish came back by the terms of the 1783 treaty, Florida had lost its old importance to the empire, even though San Marcos remained a bulwark that American advances never quite reached. For the Spanish, awaiting the manifest destiny that was to bring Florida into the union of the United States of America, there was little to do but maintenance work, such as repairs to the bridges, a new pine stairway for San Carlos tower, a bench for the criminals in the prison. In 1785 Mariano de la Rocque designed a beautiful entrance for the chapel

doorway. It was built, only to crumble slowly away like the Spanish hold on Florida.

When at last the red and gold ensign of Spain fluttered down under the thunderous salute of the old smoothbores, to be replaced by the 23-star flag of 1821, the aging fort was obsolete—already a historical relic. Fortunately for its preservation, the strategy of St. Augustine Harbor was gone. The young republic built powerful seacoast forts from Maine to Texas but the only concession to this one-time capital of the southeast was the building of a water battery in the moat east of the fort and the mounting of a few big guns on the bastions. The fort remained unchanged, except in name. For more than 150 years St. Mark had been the patron saint of this defense. The Americans chose to honor Gen. Francis Marion, the Revolutionary leader and son of the very colony against which San Marcos had been built. Spanish Castillo de San Marcos became American Fort Marion. (Legislation enacted by Congress in June 1942 restored the original name of Castillo de Marcos.)

Heavy doors and iron bars that once protected precious stores of food and ammunition made the old fort a good prison, and the prison days soon obscured the olden times that the structure had outlived. The scarred walls of the past would not release their story and the accidental discovery of the sealed-up powder magazine and the chance mention of mouldering bones only served to deepen the mystery of its real story. Out of the “dungeon” darkness into the Anglo-Saxon mind flocked all the tales suborned by centuries of hate and misunderstanding. Forgotten was the fact that boot and rack, pincers and bar were in London Tower as well as in the Inquisitorial Chamber. None stopped to think that torture was past when the castillo was built. None knew how these isolated subjects of a decadent empire labored through the long, hard years, mingling their own sweat with that of the peons to build this impregnable defense. The countless instances of unselfish zeal and loyalty, the cases of Ransom, Collins, and Carr, the Crown’s patriarchal protection of its Indian vassals, the unflagging work of the friar—these histories were not handed down to help the castillo tell its long story.

Yet, some saw past the blackness of the dungeon. “The old fort of St. Mark . . . is a noble work, frowning over the Matanzas,” wrote William Cullen Bryant, “and it is worth making a long journey to see.” His words have become increasingly true.



BIBLIOGRAPHICAL NOTE:—This publication is based mainly upon material in the Spanish records of the North Carolina Historical Commission. The translation quoted on page 5 is from the Ruth Kuykendall translation of the records for the North Carolina Historical Records Survey.

Glossary

- BASTION**—A 4-sided salient (angle) projecting from the main enclosure of a fort. The bastion was developed in Italy about 1450.
- BOMB**—A shell, or hollow iron ball filled with explosive and fired from a gun.
- CABALLERO**—(Sp.) A cavalier, i. e., a raised platform inside a fort, giving the defender's cannons the advantage of elevation over enemy guns.
- CORDON**—The ornamental projecting course of stone where the parapet wall joins the scarp.
- COVERED WAY**—The area between the exterior embankment (glacis) and the moat, protected or "covered" from enemy fire by this embankment.
- CURTAIN**—The wall connecting two bastions, i. e., part of the rampart or main wall of the fort.
- DEMILUNE**—A crescent-shaped work for defense of a fort entrance.
- EMBRASURE**—An opening in a wall or parapet, through which cannon are fired.
- FIRING STEP**—The raised step or bank along the inside of a parapet, on which soldiers are posted to fire upon the enemy.
- GALLIOT**—Small, swift galley, using both sails and oars.
- GLACIS**—The embankment or slope from the covered way toward the open country.
- GUNNER'S LADLE**—Made of copper, with wooden handles. Used for measuring powder and loading it into guns.
- HARQUEBUS**—Portable firearm invented about 1450, having a matchlock operated by a trigger. (See *match*.)
- MATCH**—A wick or cord chemically prepared to burn at uniform rate, for firing a charge of powder.
- MORTAR**—Short cannon used for firing shells at a high angle, as, for example, lobbing them over the walls of a fort into the courtyard.
- MUSKET**—The smooth-bore predecessor of the rifle. Invented about 1540. It was more powerful than the harquebus, which it superseded.
- NEW SPAIN**—Mexico.
- PALISADE**—A high fence or barricade of timbers set vertically into the ground in a close row as a means of defense.
- PARAPET**—A wall raised above the main wall or rampart of the fort to protect the soldiers.
- PILASTER**—Rectangular column with base and capital, inserted into a wall, but projecting outward about a quarter of its width.
- PIRAGUA**—A canoe made of a hollowed tree trunk.
- PORTCULLIS**—A grating to close the entrance to a fortification.
- PRESIDIO**—(Sp.) A fortified settlement.
- RAMMER**—A rod for ramming home the projectile or the charge of a gun.
- RAVELIN**—An outer defense or detached fortification raised before a curtain. Similar to a demilune; usually placed in front of the entrance to a fort.
- REDOUBT**—A small fortification completely closed by a parapet, thus allowing encircling fire.
- SCARP**—The front slope of the rampart, or main wall, of the fort.
- SPONGE**—Long-handled brush or swab used for cleaning the bore of the cannon after discharge.
- TABBY**—(Sp. *tapia*) A building cement made from lime, shell, sand, and water.
- TERREPLEIN**—The horizontal surface in rear of the parapet, on which guns may be mounted.
- WORMER**—A double screw on the end of a rammer, used for extracting the wad or cartridge from a muzzle-loading gun.

THE BUILDING OF CASTILLO
DE SAN MARCOS *is the first in
a new interpretive series of publi-
cations concerning the historic back-
grounds of American life, espe-
cially as they relate to the historic
areas under the jurisdiction of the
National Park Service, United
States Department of the Interior.*



